REMARKS

The non-final Office Action of May 21, 2010 has been carefully considered. It is respectfully submitted that all issues raised are traversed, being hereafter addressed with reference to the relevant headings appearing in the Detailed Action section of the Office Action.

Claims 1, 4, 7, 15, 18, 20-22, 24, 29-31, 37-39, 41, 43, 46, 48, 51, 53, and 55-59 have been amended. New claims 66-69 have also been added. We submit that no new material has been added by the amendments.

Specification: Abstract

A new abstract, on a separate sheet, is herewith attached with this Amendment, in accordance with the Examiner's request.

Double Patenting

The Office Action has provisionally rejected dependent claims 14, 10, 51-52 and 38 under the judicially created doctrine of obviousness-type double patenting as allegedly being unpatentable over dependent claims 11, 17, 6 and 20 of co-pending Application No. 10,533,577 (hereinafter '577).

We note however that the independent claims on which the claims depend are patentably distinct. In view of this, we believe the rejection is unfounded and therefore we request that the Examiner withdraw the rejection.

Claim Rejections – 35 USC § 101

The Office Action has rejected claims 29-34, 64-65, 48 and 59 as being directed to non-statutory subject matter. In this regard, the Examiner has asserted that those claims lack recitation of supporting hardware.

However, we note that claims 29-34, 64-65, 48 and 59 each recite a processing system and the claimed features relate to adaptations of the processing system, such that the claims are directed to a machine. Despite this, independent claims 29, 30, 48 and 59 have each been amended to recite hardware resources for providing functionality of the apparatus, and as a consequence the claims are now tied to a processing system having a processor for performing specific steps, and in the case of claim 30, an input device. We therefore submit that the claims are now tied to a particular machine and hence are statutory. These amendments are supported by the description of the specification, for example, see pages 18 to 22.

Claim Rejections – 35 USC § 112

The Office Action has rejected claims 23-24, 40-41 and 46 as failing to comply with the written description requirement.

With regards to claims 23-24 and 40-41, we note that the skilled person would understand that the act of "*generating revenue*" by charging a cost for the use of each component would be able to be implemented without a human directly performing it, because computer implemented mechanisms for charging costs would have been well known at the time of the invention. Accordingly, the skilled person would be able to implement the limitations of claims 23-24 and 40-41 based on the teachings of the disclosure, and thus we respectfully submit that the rejection of those claims as failing the written description requirement should be withdrawn

With regards to claims 46-47, we note that the features identified by the Examiner are described in the specification, see for example the disclosure from page 63, line 17 to page 64, line 33. This

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disclosure relates to providing dynamic components, and the skilled person would understand that "*determining the process of selecting one of the methods in accordance with received data*" is described. Specifically, the paragraph on page 64, lines 4-10 describes examining a received payload and causing one or more schematics to be built depending on the data contained therein. Given this, we respectfully submit that claim 46 is properly supported by the specification. Despite this, claim 46 has also been amended to explicitly recite that determining step occurs "*upon receiving data*".

Claim Rejections – 35 USC § 103(a)

The Examiner has rejected claims 1-19, 25-27, 29-34, 46-48, 51-54, 56-59 and 62-65 as being unpatentable over US 7,139,728 ("Rigole") in view of US 6,721,747 ("Lipkin") and US 6,973,638 ("Gangopadhyay"). The Examiner has further rejected claim 28 as being unpatentable over Rigole in view of Lipkin, Gangopadhyay and US 7,154,638 ("Lapstun"), and has rejected claims 20-24, 37-43 and 55 as being unpatentable over Rigole in view of Gangopadhyay and US 2001/0056362 ("Hanagan").

Please note that the arguments below refer to the amended independent claim 1, although similar arguments apply to the other claims which recite similar features.

We note that Rigole has been relied upon as the main citation throughout the rejections, and where the Examiner has acknowledged that Rigole fails to show claimed features, the Examiner has cited additional documents as allegedly remedying the deficiencies of Rigole.

However, we submit that the teachings of Rigole are directed to a fundamentally different problem to the claimed invention, such that the skilled person would have no reason to consult the teachings of Rigole, let alone obviously modify the teachings of Rigole to arrive at the claimed invention.

Rigole discloses systems and methods for online selection of service providers and management of service accounts. We note that Rigole mainly focuses on enabling consumers to compare and shop for services on-line, manage, update, add and/or cancel service accounts across different service sectors (see column 3, lines 21-24). A consumer is able to select from a variety of services from a variety of service providers, and this selection may be assisted by allowing the comparison of criteria, but the end result is the selection by the consumer of a single service provided by a single service provider, which can subsequently be initiated using an online enrolment process. The "service" of the present invention is patentably distinct from the "service" of Rigole.

The claimed invention is directed to a method and apparatus for generating computer code to allow a desired functionality to be achieved, by defining a component combination. Each component is a representation of a respective data manipulation service provided by a component server so that implementation of the component servers in accordance with the component combination causes a series of data manipulations defined by the component combination to be performed on a data sequence. A resultant data sequence is obtained as a result of the data manipulations, where the resultant data sequence is the computer code capable of performing the desired functionality when executed.

We respectfully submit that the skilled person would appreciate that the teachings of Rigole are simply not relevant to the problem of generating computer code using components. The teachings of Rigole are directed to shopping for services, but not generating computer code. A skilled person seeking to develop improved techniques for generating computer code would have no reason to consult literature disclosing methods and apparatus for shopping for a service online.

The Examiner has acknowledged that Rigole does not disclose generating computer code, and we submit that this fundamental omission by Rigole would mean that the skilled person would conclude that Rigole was completely irrelevant. Even if it were possible to modify the method of Rigole so that it was capable of generating computer code, there is no reason why the skilled

person would consider such a modification, in view of the fact that Rigole provides no teaching, suggestion or motivation towards generating computer code. The skilled person would appreciate that no obvious modification of Rigole could have predictably led to the claimed invention.

More specifically, we submit that Rigole provides no teaching or suggestion towards generating computer code using a component combination, and in particular, a component combination *"representing a plurality of interconnected component servers for performing a defined series of data manipulation"* as per claim 1.

In fact, Rigole does not even disclose, teach or suggest the use of components, alone or in a component combination, wherein each component is *"a representation of a respective data manipulation service provided by a component server"* as required by claim 1. The Examiner has referred to "program modules 2.03" of Rigole as allegedly being equivalent to components, and that "one or more modules" is allegedly equivalent to a component combination; however the skilled person would understand from a fair reading of Rigole that these modules relate to software programs such as web browsers and the like, and that one or more of these modules are not *"a plurality of interconnected component servers for performing a defined series of data manipulations"* that will *"allow a user desired functionality to be achieved"*, as claimed. We respectfully submit that Rigole makes no explicit or implicit disclosure relating to components and component combinations which the skilled person would consider as being equivalent to those elements as claimed.

We also note that the Examiner has acknowledged that Rigole is deficient in a number of aspects, in that Rigole does not explicitly disclose the following features of claim 1 (which have been restated as they appear in the claim 1):

- *"implementing the component combination to generate the computer code"* by *"causing the implementation of a component server"* and *"causing each component server to perform the respective data manipulation service"*;

- "*obtaining, as a result of the component servers performing the series of data manipulations and from the data sequence, a resultant data sequence being the computer code*";
- "*providing the computer code to a processing system, such that execution of the computer code by the processing system causes the processing system to perform the desired functionality*".

We note that these acknowledged non-disclosures of Rigole, in combination with the non-disclosure of components and component combinations as highlighted above, essentially mean that Rigole fails to disclose each of the main steps of the method of claim 1.

Given that Rigole fails so completely to disclose the claimed elements, and fails to even disclose the fundamental concepts of components and component combinations, we respectfully submit that the skilled person would not consider Rigole to be relevant prior art. Accordingly, we respectfully request that rejections on the basis of Rigole be withdrawn.

In any event, even if Rigole were relevant prior art, which we do not concede, we respectfully submit that no obvious combination of Rigole and the other cited prior art could result in the claimed invention.

The Examiner has asserted that the skilled person would turn to the disclosures of Lipkin and Gangopadhyay to remedy the deficiencies of Rigole, but we respectfully submit that no teaching, suggestion or motivation exists that would lead the skilled person to consider such combinations.

Lipkin discloses methods and apparatus for managing information in an information resource system, using generated metadata. Although Lipkin describes business applications developed based on object oriented programming principles under a distributed architecture, Lipkin fails to disclose implementing a component combination to generate computer code by having component servers perform respective data manipulation services on a data sequence in accordance with the series of data manipulations defined by the component combination. We

respectfully submit that the skilled person, upon a fair reading of this document, would conclude that Lipkin does not provide any teachings that would obviously lead the skilled person to modify Rigole towards the claimed invention.

Gangopadhyay discloses a process modelling tool for graphically representing a process which includes transactions and events, and for generating computer code representing the process. However, this generation of code merely involves associating code fragments with action nodes and event links in the graphical representation (see column 12, lines 20-26). These code fragments are supplied by the user, in files or libraries, or by the process modelling tool itself (see column 12, lines 27-33). The code is generated in Gangopadhyay by a semantic engine (see column 12, lines 35-45) or the like, that combines the code fragments. In view of this, the skilled person would understand that Gangopadhyay makes no teaching or suggestion of generating code using data manipulation services performed by respective component servers corresponding to each component in a component combination which defines a series of data manipulation services.

Given the above, the skilled person would be unable to arrive at the claimed invention even if the teachings of Rigole, Lipkin and Gangopadhyay were combined. No combination of those documents could possibly make obvious each and every one of the limitations of the independent claims.

Furthermore, since Rigole is directed towards allowing users to shop for, and manage, services online, we respectfully submit that any possible modifications to Rigole to allow code to be generated would change the fundamental principle of operation of Rigole. Accordingly, any such modification would require a substantial repurposing of the methods and systems disclosed by Rigole, to such an extent that the modifications would be beyond the capabilities of the ordinary skilled person.

Given the above, we respectfully submit that any combination of Rigole with the other cited prior art documents that could be envisaged or implemented by the skilled person would fail to

disclose or render obvious all of the features recited in claim 1. Accordingly, we submit that claim 1 is patentable over those citations as it stands.

We also submit that similar arguments apply to independent claims 29, 51 and 59, which have limitations that are substantially similar to those of claim 1, and therefore those claims are also patentable for the reasons outline above with respect to claim 1.

We note that the Examiner has rejected independent claims 37 and 43, along with several dependent claims, as being unpatentable over Rigole in view of Gangopadhyay and Hanagan. However, we submit that this particular combination of prior art does not disclose each and every limitation of claims 37 and 43, or render them obvious.

For example, claims 37 and 43 recite, in a similar fashion to claim 1, "*each component being a representation of a respective data manipulation service provided by a respective component server*" and "*a component combination defining a series of data manipulation services for manipulating the data sequence using an end station, the component combination being a combination of components and representing a plurality of interconnected component servers for performing the defined series of data manipulation services*". As per our arguments above with respect to claim 1, these features are not shown in Rigole or Gangopadhyay. We submit that the disclosure of Hanagan similarly fails to disclose these features.

Hanagan shows a system including a set of components for use in a customer care and billing system. These components may be integrated so that the components work together, with each component performing a well defined element of the overall customer care and billing system functionality. For example, Hanagan describes components such as the Customer Care Manager, Customer Billing Manager, Order Processing and Product and Services Manager. The system is modular in that particular ones of the components may be omitted or replaced by legacy components with equivalent functionalities, depending on the specific requirements for a particular instance of a customer care and billing system.

However, the skilled person would understand that the components of Hanagan are not a "*representation of a respective data manipulation*", but provide customer care and billing functionalities. When the components are integrated, they do not equate to "*a component combination defining a series of data manipulation services for manipulating the data sequence*", but merely allow different customer care and billing functionalities to be provided via a single interface through a single consolidated customer database (see abstract). Accordingly, the skilled person would appreciate that Hanagan does not disclose the concepts of components and component combinations as claimed, and would conclude these concepts are not shown by any of the cited prior art documents.

In view of the above, we submit independent claims 37 and 43 are also patentable over Rigole in view of Gangopadhyay and Hanagan.

Furthermore, we submit that independent claims 46 and 48, which each also recite one or more of the above discussed features that are not shown or rendered obvious by Rigole or the other citations, such as components being representations of respective data manipulation services, should also be patentable over the cited prior art for similar reasons as provided above.

Given that numerous distinctions have been identified in the independent claims, we submit that the rejections against the dependent claims are also moot.

In the event the Examiner is not persuaded by the above arguments, we respectfully request that the Examiner also give consideration to the patentability of the newly added claims 66-69.

Newly added method claim 66 is dependent from claim 1, whilst newly added apparatus claim 67 is dependent from claim 29, and each of these claims recite "*wherein the data sequence is a binary file including bytes, and wherein at least some of the component servers perform the respective data manipulation services by manipulating the bytes of the binary file, and wherein the generated computer code is executable binary code*". These claimed features are supported by the specification, for example see the disclosure at page 16, line 29 to page, 17 line 2. We

respectfully submit that none of the cited prior art documents disclose, or otherwise make obvious, manipulating a binary file to generate executable binary code, using component combinations as claimed, and therefore claims 66 and 67 are patentably distinguished over the prior art.

Furthermore, new independent method and apparatus claims 68 and 69 recite similar features as claims 1 and 29 but include further details regarding the determination of the component combination based on input commands from the user. Specifically, the component combination is defined by interconnecting selected ones of the plurality of components by interconnecting inputs and outputs of certain of the selected ones of the plurality of components in response to input commands received from the user. We respectfully submit that none of the cited prior art documents, or any combination thereof, disclose each and every feature of claims 67 and 68.

CONCLUSION

In view of the foregoing, it is respectfully submitted that the present application is believed to be in condition for allowance. Accordingly, the Applicant requests a Notice of Allowance of all the claims presently under examination.

The Examiner is invited to contact Applicants' undersigned representative if there are any questions relating to this application.

The Commissioner is hereby authorized to charge the amount of $65.00 as payment for the One Month Extension of Time fee to Deposit Account No. 07-1896. No other fees are believed to be due with the filing of this paper. However, if any fee is required, authorization is hereby given to charge the amount of any such fee, or credit any overpayment, to Deposit Account No. 07-1896, referencing the above-identified attorney docket number.

Respectfully submitted,

Dated: September 22, 2010   /J.D. Harriman II/

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